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Nuclear weapons states

| United States of America | |
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| Number of nuclear warheads | 5,550 <ul style="list-style-type: none"> • 3,800 nuclear warheads in the military stockpile • 1,800 of these warheads deployed • 1,750 retired and awaiting dismantlement (due to be completed by 2023) |
| Nuclear weapon system details | Submarines <ul style="list-style-type: none"> • 14 Ohio Class ballistic missile submarines (SSBN) equipped with up to 20 Trident II (D5 or enhanced D5LE) missiles with Mk-6 guidance system and W76-1, W76-2 and W88 warheads. Land based <ul style="list-style-type: none"> • 400 Minuteman III intercontinental ballistic missiles armed with either W87 or W78 warheads. Aircraft <ul style="list-style-type: none"> • 20 B-2As and 46 B-52Hs bombers are nuclear capable with around 60 (18 B-2As and 42 B-52Hs) assigned to nuclear missions. Around 300 nuclear weapons are deployed, some are free-fall but most are nuclear-tipped cruise missiles. |
| Position on first use | <ul style="list-style-type: none"> • The 2010 Nuclear Posture Review stated the fundamental role of nuclear weapons was to deter a nuclear attack on the United States and that the United States will not use or threaten to use nuclear weapons on any state that is party to the NPT and in compliance with its nuclear non-proliferation (NPT) obligations. However, it still reserves the right of first-use. • The 2018 Nuclear Posture Review (NPR) has since expanded the range of significant non-nuclear strategic scenarios in which the US would contemplate nuclear weapons use. For instance, it does not rule out the use of nuclear weapons in response to cyber-attacks. |
| Modernisations | <ul style="list-style-type: none"> • The 2018 NPR was mainly focused on the task of carrying forward the government's large-scale modernisation programme. Significantly, this NPR differed from the previous one in that it marked a shift away from seeking to reduce the number and role of nuclear weapons. • The US government is aiming to replace or upgrade all nuclear delivery systems and will spend \$494billion between 2019 and 2028 modernising and maintaining its nuclear forces and the necessary infrastructure. This will include: The production of adaptable warheads which can be used on both ICBMs and SLBMs. • The US plans to introduce a new class (Columbia) of nuclear-powered ballistic missile submarine, with the first boats expected to start patrols in 2031. • The US plans to increase the accuracy of its nuclear weapons to reduce yield. • The US completed the deployment of low-yield W76-2 nuclear warheads on its fleet of SSBNs in the Atlantic and Pacific oceans. • Production of the B61-12 guided nuclear gravity bomb is scheduled to be complete by 2025. • Plans to field a new nuclear-armed sea-launched cruise missile (SLCM-N). • The Trump administration announced plans to develop a new nuclear warhead - W93. • The Air Force has begun the development of the next generation long-range strike bomber (B-21 Raider), which is due to enter into service in the mid-2020s. It will be able to deliver two types of nuclear weapons. • Development has begun of a controversial new nuclear air-launched cruise missile (Long-Range Standoff Missile) which is to be deployed from 2030. • A replacement for the Minuteman missiles is being developed. This is the Ground Based Strategic Deterrent (GBSD), scheduled for replacement of Minuteman in 2036. This will include 642 missiles, with 400 deployed. |

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| | <ul style="list-style-type: none"> • An upgrade to the command and control systems at the US Department of Defense is planned. • The number of US bomber bases capable of storing nuclear weapons is expected to increase from two to five by the 2030s. |
| Disarmament initiatives | <ul style="list-style-type: none"> • The US officially withdrew from the Intermediate-range Nuclear Forces (INF) treaty in August 2019, followed by Russia a few days later. The collapse of this agreement, signed in 1987 and which eliminated thousands of missiles, may threaten future cooperation on disarmament initiatives. • The New START treaty was signed and came into force in 2011 between the US and Russia and was implemented in February 2018. This has resulted in modest reductions in US and Russian deployed strategic nuclear forces. • The treaty aims to ensure that both the US and Russia reduce deployed missiles and bombers to 700, deployed warheads to 1550 and deployed and non-deployed launchers to 800. This would be an over-all reduction of approximately half of the quantities recorded at the beginning of the first START treaty in 1994. • The treaty allows for satellite and remote monitoring, as well as 18 inspections per year to verify limits. • In 2017 the number of missile launch tubes on submarines was reduced from 24 to 20 on each submarine to comply with the New START treaty. • The New START treaty was renewed in 2021 for another five years. |
| Nuclear Non-Proliferation Treaty (NPT) Status | <ul style="list-style-type: none"> • Signed and ratified |
| Comprehensive Test Ban-Treaty | <ul style="list-style-type: none"> • Signed but not ratified |
| Treaty on the Prohibition | <ul style="list-style-type: none"> • Neither signed nor ratified |

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| Russia | |
| Number of nuclear warheads | 6,255 <ul style="list-style-type: none"> • 4,495 in the stockpile (1,625 deployed) • 1,760 warheads have been retired and are awaiting dismantlement |
| Nuclear weapon system details | Submarines <ul style="list-style-type: none"> • 11 operational nuclear-equipped submarines, six of which are Soviet era and five of new class - which will gradually replace the former Land based <ul style="list-style-type: none"> • 310 intercontinental ballistic missiles capable of carrying 1,189 warheads. Aircraft <ul style="list-style-type: none"> • Strategic bombers of which 68 are deployed (Bear-H6, Bear-H16 and Blackjack) with free-fall bombs or nuclear-tipped cruise missiles. Some may not be fully operational. • Russia also possesses various non-strategic capabilities including depth bombs, torpedoes and sea-launched nuclear-capable cruise missiles. |
| Position on first use | <ul style="list-style-type: none"> • In June 2020 the Russian government published, for the first time, an updated version of the previously classified Foundations of State Policy in the Area of Nuclear Deterrence. The document maintains that the use of nuclear weapons will be as a last resort. It does not advocate 'first use' but neither does it rule it out either. |
| Modernisations | <ul style="list-style-type: none"> • Six more Borei class SSBNs are under development and are expected to be launched by the end of 2021. • The modernisation of air bombers is underway, although progress is slower than planned. The upgraded bombers are capable of carrying the new AS-23B nuclear air-launched cruise missiles. • Approximately 80% of the country's Intercontinental ballistic missiles have now been upgraded, with all remaining Soviet era ones to be withdrawn by 2024. Progress has been slow however and this deadline is in doubt. • There has been the modernization of defensive systems and the fielding of a nuclear version of the new long-range land attack Kalibr Sea launch cruise missile. |
| Disarmament initiatives | <ul style="list-style-type: none"> • Russia officially withdrew from the Intermediate-range Nuclear Forces (INF) treaty in August 2019, following the US decision to do so earlier in the year. The collapse of this agreement, signed in 1987 and which eliminated thousands of missiles, may threaten future cooperation on disarmament initiatives. • The New START treaty was signed and came into force in 2011 between the US and Russia and was implemented in February 2018. This has resulted in modest reductions in US and Russian deployed strategic nuclear forces. • The treaty aims to ensure that both the US and Russia reduce deployed missiles and bombers to 700, deployed warheads to 1550 and deployed and non-deployed launchers to 800. This would be an over-all reduction of approximately half of the quantities recorded at the beginning of the first START treaty in 1994. • The treaty allows for satellite and remote monitoring, as well as 18 inspections per year to verify limits. • The New START treaty was renewed in 2021 for another five years.. |
| Nuclear Non-Proliferation Treaty | <ul style="list-style-type: none"> • Signed and ratified |
| Comprehensive Test Ban-Treaty | <ul style="list-style-type: none"> • Signed and ratified |
| Treaty on the Prohibition of Nuclear Weapons | <ul style="list-style-type: none"> • Neither signed nor ratified |

| France | |
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| Number of nuclear warheads | 290 |
| Nuclear weapon system details | <p>Submarines</p> <ul style="list-style-type: none"> • The Navy is responsible for the majority of France’s nuclear arsenal – around 80%. • Four Triomphant class SSBNs, each equipped with 16 intercontinental ballistic missiles. All carry M51 missiles. The M51.2 was fully replaced by the M51.2 in 2021. <p>Aircraft</p> <ul style="list-style-type: none"> • Two squadrons of 40 Rafale BF3 aircraft. • Rafale aircraft equipped with the extended-range medium-range air-to-surface cruise missiles (ASMP-As) and the TNA warhead. |
| Position on first use | <ul style="list-style-type: none"> • France says it will use nuclear weapons against either nuclear or non-nuclear states in the case of invasion or other attack against their territory or against one of their allies. |
| Modernisations | <ul style="list-style-type: none"> • French President Emmanuel Macron reaffirmed the government’s commitment to the long-term modernisation of France’s nuclear forces in 2018 in a speech in 2020. The 2021 budget suggested that a total of €25 billion euros would be spent on nuclear modernisation between 2019-2023. • Design work has begun on the M51.3 missile for future use on the SLBMs, expected to be operational by 2025. • Preliminary work has begun to develop a third-generation SSBN to be operational by 2035. Work is expected to start on the SNLE 3G in 2023. • A mid-life refurbishment programme for the ASMP-A has begun, with the first upgraded missile expected in 2023. • Research has begun on a successor air to surface nuclear missile (ASN-4G), which is expected to enter into service in 2035. |
| Disarmament Initiatives | N/A |
| Nuclear Non-Proliferation Treaty | <ul style="list-style-type: none"> • Signed and ratified |
| Comprehensive Test Ban-Treaty | <ul style="list-style-type: none"> • Signed and ratified |
| Treaty on the Prohibition of Nuclear Weapons | <ul style="list-style-type: none"> • Neither signed nor ratified |

| China | |
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| Number of nuclear warheads | 350 |
| Nuclear weapon system details | <p>Submarines</p> <ul style="list-style-type: none"> • Six Type 094 SSBNs are believed to have been built, with four operational. Each can be equipped with 12 JL-2 SLBM. • One (Xia class SSBN) with 12 intermediate range ballistic missiles (JL-1) each with one nuclear warhead (but sub not thought to be fully operational). <p>Land-based</p> <ul style="list-style-type: none"> • China's ground-launched capabilities include intercontinental, intermediate and medium range ballistic missiles. • The inventory consists of 240 missiles of seven types. <p>Aircraft:</p> <ul style="list-style-type: none"> • China publicly revealed the H-6N as its first long-range bomber in 2019. |
| Position on first use | <ul style="list-style-type: none"> • China has a long-standing no first use policy.. |
| Modernisations | <ul style="list-style-type: none"> • China is replacing ageing silo-based, liquid-fuelled missiles with newer mobile and solid-fuelled models. • Construction on a next generation SSBN (Type 096) is likely to begin in early 2020s. • China is believed to be developing two new air-launched ballistic missiles |
| Disarmament initiatives | N/A |
| Nuclear Non-Proliferation Treaty | <ul style="list-style-type: none"> • Signed and ratified |
| Comprehensive Test Ban-Treaty | <ul style="list-style-type: none"> • Signed but not ratified |
| Treaty on the Prohibition of Nuclear Weapons | <ul style="list-style-type: none"> • Neither signed nor ratified |

| United Kingdom | |
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| Number of nuclear warheads | 225 120 operationally available. |
| Nuclear weapon system details | Submarines: Four (Vanguard class SSBNs) each carrying up to eight Trident II (D-5) intercontinental ballistic missiles ('lease-purchased' from the US pool of Trident missiles). There are up to five nuclear warheads on each missile. |
| Position on first use | <ul style="list-style-type: none"> • In line with its NATO membership, the UK has a first use policy. In its 2021 Integrated Review, it expanded the scope of circumstances with which it could respond with nuclear weapons. |
| Modernisations | <ul style="list-style-type: none"> • The government has started replacing the four Vanguard class SSBNs which will reach the end of their service life in 2032. • The new submarines named 'Dreadnought' are to be equipped with modified Trident II (D5LE) SLBMs with 12 missile tubes. These are expected to enter into service in the 2030s. • It was revealed in 2020 that work has begun on a warhead replacement programme. |
| Disarmament initiatives | <ul style="list-style-type: none"> • Overturning previous announcements that its nuclear stockpile will decrease to no more than 180 warheads by the mid-2020s, the UK government announced in its 2021 Integrated Review that it would increase its ceiling on its number of nuclear warheads to 260. |
| Nuclear Non-Proliferation Treaty | <ul style="list-style-type: none"> • Signed and ratified |
| Comprehensive Test Ban-Treaty | <ul style="list-style-type: none"> • Signed and ratified |
| Treaty on the Prohibition of Nuclear Weapons | <ul style="list-style-type: none"> • Neither signed nor ratified |

| Israel | |
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| Number of nuclear warheads | <ul style="list-style-type: none"> • 90. (The Israeli government still refuses to publicly confirm or deny that it has nuclear weapons) |
| Nuclear weapon system details | <ul style="list-style-type: none"> • Submarines: Israel operates five Dolphin and Dolphin-2 class submarines, some or all of which are thought to be equipped with nuclear-armed cruise missiles. • Land-based: Israel is believed to have 50 warheads for delivery by missiles of both intermediate and intercontinental ballistic missiles range (Jericho II & Jericho III). • Aircraft: Israel possesses several aircrafts that are nuclear capable, including the F-15 and F-16. It is believed that approximately 30 gravity bombs are assigned to the F-16. |
| Position on first use | Not stated |
| Modernisations | <ul style="list-style-type: none"> • An Israeli test of an unspecified rocket propulsion system in 2019 has led to speculation that a Jericho IV missile is being developed. |
| Disarmament | N/A |
| Nuclear Non-Proliferation Treaty | <ul style="list-style-type: none"> • Not signed |
| Comprehensive Test Ban-Treaty | <ul style="list-style-type: none"> • Signed but not ratified |
| Treaty on the Prohibition of Nuclear Weapons | <ul style="list-style-type: none"> • Neither signed nor ratified |

| India | |
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| Number of nuclear warheads | 156 |
| Nuclear weapon system details | <p>Land based</p> <ul style="list-style-type: none"> • Nuclear capable ballistic missiles - short range (Prithvi II and Agni I); medium range (Agni II) and intermediate range (Agni III). <p>Aircraft</p> <ul style="list-style-type: none"> • 48 free-fall nuclear bombs believed to be assigned to Mirage 2000H Vajra and Jaguar IS Shamsheer. • India has purchased 36 Rafale aircraft from France – it is unclear yet if these will have a nuclear role. <p>Sea-based</p> <ul style="list-style-type: none"> • Dhanush missile – this is launched from a surface ship and is likely to be retired from service soon. • SSBN INS Arighat completed its first patrol in 2018. SSBN INS Arighat was launched in 2017 and is expected to be commissioned in 2021. |
| Position on first use | <ul style="list-style-type: none"> • India has a policy of no first use (although with a caveat that they could be used in retaliation of an attack by another weapon of mass destruction). |
| Modernisations | <ul style="list-style-type: none"> • Agni IV and Agni V (India's first intercontinental ballistic missile) are being tested. • Agni VI (which has even longer range) is in the early stages of development. • Construction work has begun on a third and fourth SSBN with expected launch dates of 2021 and 2023. • Development on the longer-range K-4, K-5 and K-6 SLBM has begun. |
| Disarmament initiatives | N/A |
| Nuclear Non-Proliferation Treaty | <ul style="list-style-type: none"> • Neither signed nor ratified |
| Comprehensive Test Ban-Treaty | <ul style="list-style-type: none"> • Neither signed nor ratified |
| Treaty on the Prohibition of Nuclear Weapons | <ul style="list-style-type: none"> • Neither signed nor ratified |

| Pakistan | |
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| Number of nuclear warheads | 165 |
| Nuclear weapon system details | <p>Land-based</p> <ul style="list-style-type: none"> • Short range ballistic missiles (Ghaznavi, Shaheen-I, Abdali, Nasr) and medium range ballistic missiles (Ghauri and Shaheen II) <p>Aircraft</p> <ul style="list-style-type: none"> • There are unconfirmed reports that Pakistan has modified F-16 aircraft for nuclear weapon use. • It is likely that Mirage III and V have nuclear delivery roles. <p>Sea-based</p> <ul style="list-style-type: none"> • Pakistan is seeking to develop a sea-based nuclear capability. The Babur-3 SLCM is currently undergoing tests. |
| Position on first use | <ul style="list-style-type: none"> • While Pakistan has a policy of no first use against non-nuclear states, it refuses to do likewise with nuclear states, specifically in regards to India. |
| Modernisations | <ul style="list-style-type: none"> • The Shaheen ballistic missile is being upgraded to make it intermediate-range (Shaheen- IA) • A longer-range missile (Shaheen-III) is currently in development, and is expected to enter into service in 2022. • Short-range ground cruise missiles are being developed. The Babur-2 (improvement on Babur) cruise missile has completed successful tests. • A short-range nuclear-capable cruise missile is being developed (Ra'ad). This is to be launched from an aircraft. Ra'ad has been flight tested and Ra'ad-2 is being developed. Pakistan claims that these can carry conventional or nuclear warheads. • Pakistan is in the process of acquiring JF-17 aircraft to replace its Mirage aircraft, however it is unclear whether it will have nuclear delivery capabilities. • Development of a new MRBM (Abadeel) which is nuclear capable has begun. This can deliver multiple warheads. |
| Disarmament initiatives | N/A |
| Nuclear Non-Proliferation Treaty | <ul style="list-style-type: none"> • Neither signed nor ratified |
| Comprehensive Test Ban-Treaty | <ul style="list-style-type: none"> • Neither signed nor ratified |
| Treaty on the Prohibition of Nuclear Weapons | <ul style="list-style-type: none"> • Neither signed nor ratified |

| North Korea | |
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| Number of nuclear warheads | <ul style="list-style-type: none"> • Estimates suggest North Korea may have 40-50 nuclear weapons. • Remains unclear whether North Korea could launch nuclear weapons to hit a target. |
| Nuclear Weapon System details | <p>Land or air-based missiles (unclear how they will be deployed):</p> <ul style="list-style-type: none"> • Focus is on land-based ballistic missiles, but North Korea has several types of short, medium and intermediate systems either deployed or under development. These include: <ul style="list-style-type: none"> • Nodong – 50 launchers first deployed in 1990. Most likely to be given a nuclear delivery role. Medium range. • Hwasong 9 – Test launched with mixed results. • Musudan – Status unclear as previous tests have failed • Hwasong-12- successful test launches but not yet deployed. • Bukkeukseing-2 – Two successful flight tests in 2017. Intercontinental ballistic missiles: <ul style="list-style-type: none"> • Hwasong-13 – under development. Not yet tested. • Hwasong-14- prototype ICBM, two test launches in 2017 • Hwasong -15 – experts have expressed doubts over the current viability of this missile. • North Korea has also previously successfully launched a satellite into space with three-stage separation. However, analysts state that North Korea has never demonstrated guidance and re-entry capabilities. <p>Sea-based</p> <ul style="list-style-type: none"> • North Korea continues to attempt to develop a successful SLBM. In 2019 it was announced that a new SLBM (Pukguksong-3) had been flight tested. In 2020, a new variant (Pukguksong-4) was on display at a parade. • North Korea has also announced it is building a new ballistic missile submarine. |
| Position on first use | <ul style="list-style-type: none"> • North Korea has declared it would use its nuclear weapons pre-emptively. |
| Disarmament initiatives | <ul style="list-style-type: none"> • North Korea and the US held a summit in Singapore in 2018 in which they signed a joint statement pledging lasting peace and the complete denuclearization of the Korean Peninsula. But a second summit in February 2019 was cut short after North Korea rejected the US proposal for the former to completely denuclearise in return to an end to all sanctions. Relations have since deteriorated. |
| Nuclear Non-Proliferation Treaty | <ul style="list-style-type: none"> • Withdrew from treaty in 2003 |
| Comprehensive Test Ban-Treaty | <ul style="list-style-type: none"> • Neither signed nor ratified |
| Treaty on the Prohibition of Nuclear Weapons | <ul style="list-style-type: none"> • Neither signed nor ratified |



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